

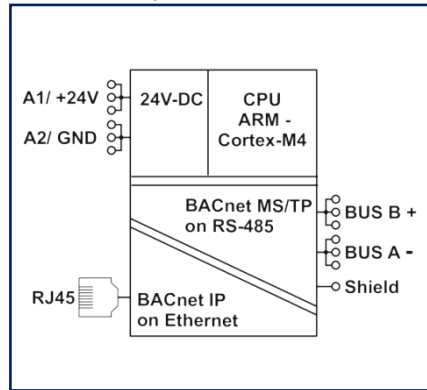
# Data sheet

## BMT-RTR BACnet-Router

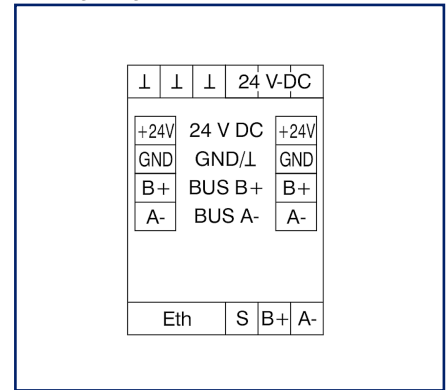
### Illustrations



Principle diagram



Wiring diagram



See enlarged drawings at the end of document

### Product specification

BMT-(F)-RTR is a compact Router and enables bidirectional data exchange between BACnet/IP and BACnet MS/TP fieldbus devices. The BMT-(F)-RTR can be connected to METZ CONNECT BACnet MS/TP devices via two 4-pole terminals on the front of the device and a jumper plug. An integrated web server is used for parameter settings, management and monitoring of the two interfaces (Ethernet / RS485). The web interface is also used to update the firmware. The BMT-(F)-RTR is suitable for decentralised mounting in electrical sub-distribution boards or in control cabinets on TH35 mounting rails in accordance with IEC 60715.

- Connection with screw type terminal blocks
- Access to 32 devices on the BACnet MS/TP bus
- Bidirectional exchange of data between BACnet/IP and BACnet MS/TP devices
- Protocol: BACnet MS/TP, BACnet/IP, BACnet Ethernet, HTTP 1.0
- Integrated web server
- Intuitive and software-independent TCP configuration via web interface
- Recording and analysis of IP and RS485 communication
- Simple device search of METZ CONNECT BACnet MS/TP devices on the RS485 bus
- Fast connection of METZ CONNECT BACnet MS/TP devices via proven jumper plug technology

## Technical Data

### Approvals



Open Energy Management Equipment 34TZ



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### Ethernet interface

Network connection	1 x Ethernet port (RJ-45 IEC 60603-7-51 (2010))
Speed	10/100 Mbits with auto-negotiation
Protocol	HTTP 1.0, BACnet Ethernet, BACnet/IP

### RS485 interface

Protocol	BACnet MS/TP
Transmission parameters	
Transmission rate	min. 9600 Bit/s (Bd) - max. 115200 Bit/s (Bd)
Transmission rate default setting	9600 Bit/s (Bd)
Parity	None
Stopbits	1
Galvanic isolation	1.5 kV
Bus termination resistor	120 Ohm switchable
Number of bus participants	32; with 1 unit load per participant

### Supply

Operating voltage	24 V DC +/- 10 % (SELV)
Power consumption (max.)	50 mA
Power loss (max.)	1.3 W

### Housing

Dimensions	
Dimension (W x H x D)	35 mm x 69.3 mm x 60 mm
Dimension (W x H x D)	1.378 in. x 2.728 in. x 2.362 in.
Weight	64 g
Mounting style	Standard rail TH35
Mounting position	any

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### Technical Data

Housing	
Apposition	without distance
Connection type	Screw type terminal blocks
Indicator	
Operation "RDY"	green LED
LAN connection "LINK 10/100"	green LED (100 Mbit), yellow LED (10 Mbit)
RS485 bus "TX" / "RX"	green LED
Terminal blocks	
Supply and bus	
Terminal block	4-pole, pluggable, on front of housing
Solid wire (AWG)	max. 1.5 mm <sup>2</sup> / max. 16 AWG
Stranded wire (AWG)	max. 1 mm <sup>2</sup> / max. 18 AWG
Wire diameter	max. 1.4 mm - min. 0.3 mm
Module connection	
Wire cross section solid	0.2 mm <sup>2</sup> - 2.5 mm <sup>2</sup> / AWG 22-12
Wire cross section multi	0.25 mm <sup>2</sup> - 2.5 mm <sup>2</sup> / AWG 22-12
Wire cross section with wire ferrule	0.25 mm <sup>2</sup> - 2.5 mm <sup>2</sup> / AWG 22-12
Screw torque (max.)	0.5 Nm
Stripping length (min.)	8 mm
Ethernet connection	RJ45-jack
Material	
Material - Housing	Polyamid 6.6 V0
Color	gray
Material - Terminal block	Polyamid 6.6 V0
Material - Covers	Polycarbonat
REACH	compliant
REACH - substance (SVHC)	Lead / 7439-92-1

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**Technical Data****Protection category according to IEC 60529**

Protection category - housing (acc. to IEC 60529) IP40

Protection category - terminal blocks (acc. to IEC 60529) IP20

**Temperature range (min. - max.)**

## Operating

Temperature - Operating °C -5 °C - 55 °C

Temperature - Operating °F 23 °F - 131 °F

## Storage

Temperature - Storage °C -20 °C - 70 °C

Temperature - Storage °F -4 °F - 158 °F

**Classifications**

ETIM 7.0 EC000673

ETIM 8.0 EC000673

**Software and additional documents**Software MC Search Tool: Windows-based and free tool to configure and search the BMT-(F)-RTR in a TCP/IP network (free download at [www.metz-connect.com](http://www.metz-connect.com))

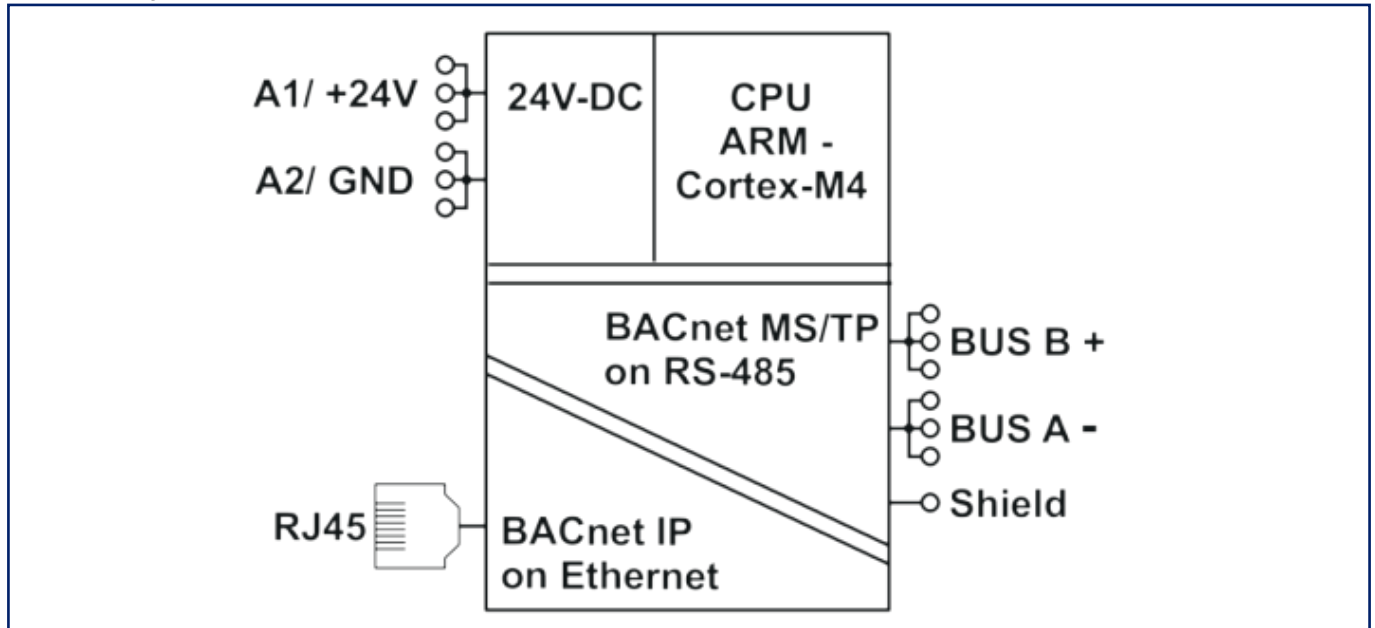
## Accessories

P/N	Designation
110561	Power supply NG4 24 V DC
11056170	Power supply NG4-F 24 V DC
11088013	BMT-TO4 BACnet MS/TP
1108801370	BMT-F-TO4 BACnet MS/TP
1108811319	BMT-DI10 BACnet MS/TP
110881131970	BMT-F-DI10 BACnet MS/TP
11088213	BMT-AI8 BACnet MS/TP
1108821370	BMT-F-AI8 BACnet MS/TP
1108830526IP	BMT-DIO4/2-IP65 BACnet MS/TP 230 V
1108831326	BMT-DIO4/2 BACnet MS/TP
110883132670	BMT-F-DIO4/2 BACnet MS/TP
1108831326IP	BMT-DIO4/2-IP65 BACnet MS/TP
1108841319	BMT-DI4 BACnet MS/TP
110884131970	BMT-F-DI4 BACnet MS/TP
1108841319IP	BMT-DI4-IP65 BACnet MS/TP
1108851302	BMT-AO4 BACnet MS/TP
110885130270	BMT-F-AO4 BACnet MS/TP
1108861321	BMT-DO4 BACnet MS/TP
110886132170	BMT-F-DO4 BACnet MS/TP
1108871302	BMT-AOP4 BACnet MS/TP
110887130270	BMT-F-AOP4 BACnet MS/TP
11088813	BMT-TP BACnet MS/TP
1108881370	BMT-F-TP BACnet MS/TP
11088913	BMT-SI4 BACnet MS/TP
1108891370	BMT-F-SI4 BACnet MS/TP
1108901332	BMT-CI4 BACnet MS/TP
110890133270	BMT-F-CI4 BACnet MS/TP
11089313	BMT-Multi I/O BACnet MS/TP



**Illustrations**

Principle diagram



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